

TABLE S6-19

Exports and imports of high R&D intensive products, by region, country, or economy: 2003–18

(Millions of current dollars)

Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Exports																
World	1,268,387	1,477,389	1,542,953	1,812,750	2,018,112	2,106,540	1,826,576	2,133,621	2,249,934	2,269,028	2,353,796	2,469,996	2,349,035	2,334,901	2,604,145	2,800,423
North America	231,207	218,725	231,168	317,614	333,976	346,145	252,640	285,833	290,905	298,060	297,194	313,346	311,673	306,651	311,275	321,486
Canada	20,337	22,170	25,505	28,745	31,937	30,528	27,440	26,498	27,037	26,329	25,964	29,207	29,347	27,570	25,293	27,744
Mexico	32,940	38,137	40,159	48,736	49,480	58,868	51,447	62,979	62,712	66,611	66,384	68,653	66,804	64,711	69,912	73,211
United States	177,930	158,418	165,504	240,133	252,559	256,749	173,753	196,355	201,157	205,121	204,846	215,487	215,523	214,371	216,069	220,531
Central and South America	6,120	7,576	9,893	10,903	11,634	13,589	11,043	11,338	12,203	12,179	11,359	10,364	10,828	10,426	10,027	9,124
Brazil	4,505	5,808	7,549	8,103	8,575	10,156	7,719	7,804	7,764	8,218	7,198	6,638	6,792	6,835	6,233	6,283
Other South America	1,616	1,768	2,345	2,800	3,058	3,433	3,323	3,534	4,440	3,961	4,161	3,727	4,036	3,590	3,794	2,841
Europe	488,776	588,260	640,793	739,452	767,606	821,228	732,220	803,190	864,200	837,346	866,390	908,232	835,067	849,655	914,446	960,986
EU	456,570	549,704	601,259	693,357	714,477	759,261	671,366	737,897	788,446	758,517	783,691	819,009	749,431	758,428	821,068	862,083
France	61,983	71,149	75,934	86,679	88,595	99,345	90,851	106,076	112,344	115,901	119,578	117,675	107,019	105,994	107,447	112,677
Germany	98,034	127,932	138,674	156,498	172,293	183,643	162,687	173,643	189,330	191,112	195,146	203,446	192,519	194,286	212,010	230,931
United Kingdom	57,397	60,644	74,235	112,630	60,848	61,499	45,428	59,819	61,592	58,446	55,822	73,962	76,034	73,618	75,130	71,833
Other EU	239,157	289,978	312,416	337,550	392,741	414,774	372,399	398,359	425,181	393,059	413,145	423,927	373,859	384,529	426,481	446,642
Other Europe	32,206	38,557	39,533	46,095	53,129	61,967	60,854	65,292	75,754	78,828	82,699	89,223	85,636	91,227	93,378	98,903
Middle East	9,086	10,740	13,413	14,350	14,339	20,926	23,510	25,403	25,759	48,166	58,334	57,475	33,102	29,333	49,929	21,871
Asia	529,140	647,350	642,190	724,610	883,824	897,330	800,744	1,000,623	1,048,425	1,064,381	1,112,409	1,172,828	1,151,494	1,131,262	1,310,621	1,478,080
China	129,496	181,093	227,748	277,129	327,571	365,217	328,397	421,177	458,396	475,462	495,444	535,221	525,420	503,451	576,704	647,796
India	2,952	3,469	4,003	4,911	6,438	9,342	12,831	12,783	18,529	18,323	22,944	22,960	20,270	20,153	19,382	21,948
Indonesia	5,759	6,801	7,034	6,514	5,732	6,198	6,673	8,512	8,662	8,541	7,478	7,071	6,330	5,706	5,952	6,147
Japan	96,957	109,660	105,526	107,769	112,405	112,980	88,527	102,957	98,389	94,124	81,787	77,953	72,776	73,026	78,516	79,804
Malaysia	50,156	56,738	60,860	68,538	69,630	48,969	58,751	68,406	67,787	63,824	64,476	67,322	61,005	59,697	71,811	87,743
Philippines	23,883	24,231	24,169	26,423	29,221	25,984	20,465	15,958	13,197	19,024	20,795	23,540	26,307	26,235	26,168	27,606
Singapore	79,089	95,010	39,897	45,888	129,953	130,023	106,690	138,152	136,503	136,544	142,357	140,964	133,603	126,778	135,407	141,086
South Korea	64,843	83,625	84,187	85,328	94,666	90,476	79,772	99,806	99,021	93,517	106,446	113,467	115,394	111,685	152,184	186,540
Taiwan	54,327	62,655	61,749	68,697	71,025	69,253	63,480	88,925	99,208	94,724	100,214	109,019	105,824	112,767	130,426	132,473
Thailand	20,542	22,448	25,127	30,889	34,132	34,298	31,067	37,548	36,520	37,901	36,789	37,247	35,757	35,059	40,504	41,278
Vietnam	748	1,097	1,371	1,737	1,959	3,385	3,580	5,785	11,388	21,045	32,516	36,214	47,702	55,490	72,353	104,479
Other Asia	389	523	519	788	1,092	1,205	511	614	824	1,350	1,162	1,849	1,106	1,214	1,215	1,180
Oceania	4,059	4,737	5,496	5,821	6,732	7,323	6,418	7,235	8,441	8,896	8,110	7,750	6,871	7,575	7,847	8,876
Australia	3,573	4,081	4,752	4,877	5,911	6,425	5,655	6,495	7,525	8,087	7,322	6,967	6,047	6,751	6,915	7,968
New Zealand	485	656	744	944	821	897	763	740	916	809	788	783	824	824	932	908
Imports																
World	1,294,779	1,566,523	1,674,045	1,897,877	2,113,421	2,228,809	1,956,315	2,362,493	2,513,136	2,554,196	2,654,132	2,748,323	2,636,896	2,724,379	2,989,921	3,208,784
North America	296,376	343,544	376,067	416,100	434,589	453,797	415,392	490,747	519,251	528,394	536,002	558,461	577,412	569,810	611,007	655,781

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(Millions of current dollars)

Region, country, or economy	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Canada	31,212	36,151	41,454	45,180	49,688	51,474	45,378	51,857	56,440	54,096	54,508	54,293	52,547	49,166	53,549	57,126
Mexico	30,738	37,481	39,401	46,499	39,219	53,390	49,495	62,530	65,766	66,997	70,406	70,452	69,958	67,639	66,371	73,905
United States	234,425	269,912	295,213	324,421	345,682	348,932	320,520	376,359	397,045	407,300	411,088	433,716	454,906	453,005	491,086	524,751
Central and South America	19,094	26,174	34,357	42,705	43,531	63,266	53,488	67,108	77,939	80,752	82,250	82,218	71,337	60,434	65,358	67,092
Brazil	7,540	10,140	12,437	15,671	12,061	24,722	20,202	27,391	30,891	31,324	33,090	32,255	24,935	21,245	24,596	26,967
Other South America	11,554	16,034	21,919	27,033	31,470	38,543	33,286	39,717	47,049	49,427	49,160	49,963	46,401	39,189	40,762	40,125
Europe	515,426	637,514	690,149	789,196	859,921	916,137	769,778	906,329	948,276	891,988	906,912	952,902	865,668	879,352	942,817	977,656
EU	473,806	584,587	627,854	713,358	768,384	812,920	682,880	802,543	830,949	771,076	783,305	826,790	760,891	765,761	814,520	847,321
France	53,852	65,293	69,959	79,606	84,231	89,567	84,470	99,950	109,660	105,629	104,354	104,949	95,855	98,124	91,166	91,242
Germany	100,296	124,111	139,977	161,957	163,556	173,399	157,540	179,937	186,842	168,542	168,444	178,421	166,062	162,824	181,573	193,635
United Kingdom	68,260	82,854	84,460	103,088	91,200	89,311	47,584	85,633	88,065	80,382	82,310	107,728	103,846	101,635	100,205	98,719
Other EU	251,398	312,328	333,458	368,707	429,396	460,643	393,286	437,022	446,383	416,523	428,197	435,692	395,127	403,177	441,576	463,725
Other Europe	41,620	52,927	62,295	75,838	91,538	103,217	86,898	103,787	117,326	120,912	123,607	126,112	104,777	113,591	128,297	130,335
Middle East	20,864	25,860	29,758	29,824	38,559	47,099	44,986	48,621	58,206	86,529	96,758	106,123	82,013	81,574	168,342	151,887
Asia	422,880	508,419	516,500	591,383	704,776	714,629	643,112	814,410	868,976	927,212	995,492	1,011,852	1,005,709	1,098,062	1,163,852	1,315,090
China	142,895	179,774	211,327	251,633	283,527	285,752	264,865	344,171	374,239	409,051	459,702	468,164	465,812	551,167	538,405	626,889
India	7,645	9,720	13,244	19,582	20,592	27,492	26,505	27,551	30,868	31,012	32,722	34,163	39,381	38,851	50,685	63,457
Indonesia	1,507	2,402	2,903	3,458	5,682	14,197	12,301	15,632	17,236	18,752	15,678	14,041	12,857	12,995	14,971	17,084
Japan	66,243	76,890	81,543	83,957	86,547	91,015	82,662	106,352	114,711	124,627	121,991	121,982	112,973	113,659	118,237	125,451
Malaysia	35,839	41,693	43,817	48,519	50,807	37,382	39,209	50,898	51,599	49,971	52,261	53,555	45,629	44,818	52,685	59,038
Philippines	20,908	22,283	22,978	24,496	25,902	21,560	16,179	19,875	9,811	18,437	18,946	17,759	21,967	23,931	26,545	31,296
Singapore	56,563	71,725	26,798	33,618	95,378	98,417	77,870	96,737	97,702	99,213	102,504	100,088	95,143	93,103	103,580	115,222
South Korea	34,399	38,462	41,442	46,078	52,081	54,015	45,937	55,620	60,750	56,759	59,712	66,884	71,842	72,820	79,872	86,830
Taiwan	34,569	39,329	41,351	44,341	43,725	42,935	38,163	49,883	53,401	50,291	52,738	55,529	53,583	57,771	68,632	75,885
Thailand	16,357	18,506	21,281	23,027	24,443	24,700	22,883	27,707	30,634	33,665	35,046	33,912	33,437	32,442	37,547	39,275
Vietnam	2,463	3,067	3,124	3,837	6,075	7,036	8,035	9,359	13,355	21,441	29,070	30,407	38,172	41,759	54,562	56,093
Other Asia	3,492	4,569	6,693	8,838	10,018	10,127	8,502	10,625	14,671	13,993	15,121	15,367	14,911	14,745	18,132	18,571
Oceania	20,139	25,011	27,214	28,669	32,044	33,881	29,559	35,278	40,488	39,321	36,718	36,768	34,758	35,146	38,545	41,278
Australia	17,410	21,549	23,131	24,512	27,868	29,660	25,532	31,244	35,495	34,714	31,943	31,165	29,520	30,289	33,671	36,052
New Zealand	2,730	3,462	4,082	4,157	4,176	4,221	4,027	4,034	4,994	4,607	4,776	5,603	5,238	4,858	4,874	5,226

EU = European Union.

Note(s):

High R&D intensive products include aircraft; pharmaceuticals; and computer, electronic, and optical products classified by the Organisation for Economic Co-operation and Development. Detail may not add to total because of rounding or minor discrepancies. World exports do not equal imports because of statistical errors in the reporting of trade data and the lack of trade data on sub-Saharan African countries. World total does not include all countries and economies due to limitations in data availability. China includes Hong Kong. China data exclude bilateral flows between mainland China and Hong Kong. See Table S6-17 for a full list of countries and economies in each region.

Source(s):

Oxford Economics, special tabulations (2019) of Global Trade Databank.

Science and Engineering Indicators